

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

Claim 1 (original).

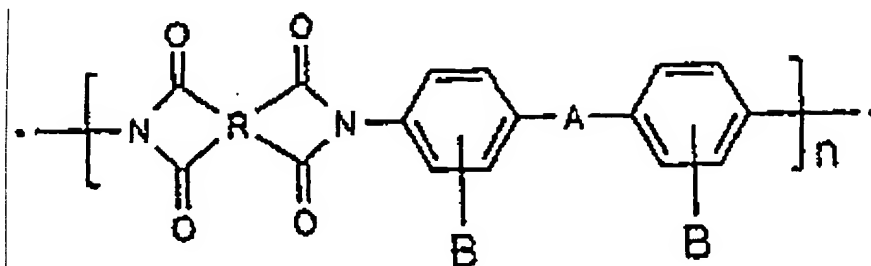
A nanocomposite, wherein said composite is formed of modified polyhedral oligomeric silsesquioxane (POSS) and polyimide through covalent bonding, and are a self-assembled system with low dielectric constant and certain mechanical properties.

Claim 2 (original).

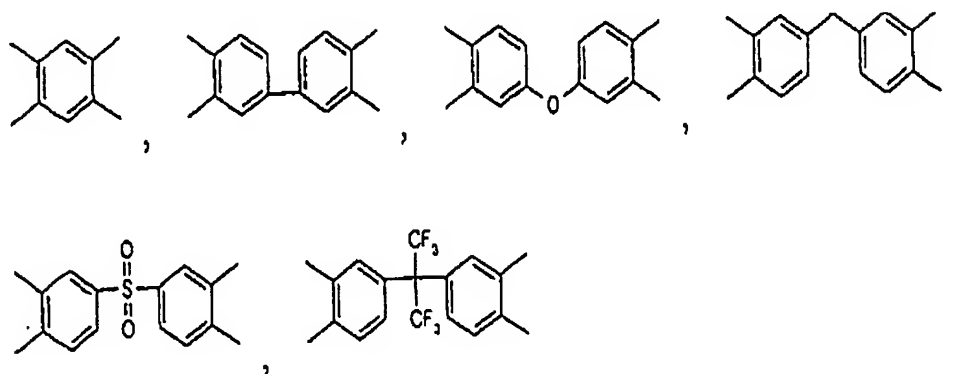
The nanocomposite according to Claim 1, wherein the polyhedral oligomeric silsesquioxane is of reactive functional group, which is typically represented by chemical formula $(\text{SiO}_{1.5})_n\text{R}_{n-1}\text{R}'$, wherein $n=6, 8, 10, 12$, R is alkyl having 1 to 6 carbon atoms or phenyl, R' is $-\text{R}_1-\text{B}$; R_1 is alkyl having 1 to 6 carbon atoms or phenyl, and B is selected from group at least consisting $-\text{NH}_2$, $-\text{OH}$, $-\text{Cl}$, $-\text{Br}$, $-\text{I}$, or other derivatives having diamine group (2NH_2) , for example, reactive functional groups as $-\text{R}_1-\text{N}(-\text{Ar}-\text{NH}_2)_2$, $-\text{R}_1-\text{O}-\text{Ar}-\text{CH}(-\text{Ar}-\text{NH}_2)_2$ and the like.

Claim 3 (original).

The nanocomposite according to Claim 1, wherein the polyimide typically has polymerization units represented by following formula:



wherein R is



wherein A is -O-, -S-, -CH₂-, C(CH₃)₂, or C(CF₃)₂ and the like; B is -H, -OH, or -NH₂.

Claim 4 (original).

The nanocomposite according to Claim 1, wherein the dielectric constant of said composite is reduced to 2.3.

Claims 5 to 10 (cancelled).